## REMEMBRANCE

## In memoriam of Prof. Giuliano Bonomi (1933-2023)

With deep emotion and sadness, I write about the passing of Professor Giuliano Bonomi, one of our most precious colleagues. He was a dear friend and a tutor during my younger years. Giuliano dedicated his life to scientific research, and particularly to the study of lake ecosystems. He was a pioneer of aquatic ecology research, and more specifically of the study of freshwater and marine benthos (invertebrates associated to freshwater environments, commonly named "macroinvertebrates") and their particular relationship to lake sediments. During his long scientific career, he worked in different fields of theoretical and applied ecology, addressing the various problems of environmental research, including lake restoration.

Giuliano Bonomi studied at the University of Milan and graduated in Biological Sciences. He was hired and joined the Istituto Italiano di Idrobiologia staff in the late 1950s. He was professor of Ecology and Limnology at the University of Milan and then at the Faculty of Mathematical, Physical and Natural Sciences at the Universities of Bologna and Ravenna.

With the assistance of Giuliano (together with Carlo Saraceni, Livia Tonolli and Michael S. Adams), I learned the first fundaments of lake ecology and the functioning of aquatic ecosystems. Above all, I admire him and am grateful for his lively conversations with me as he introduced me to the world of limnology. His curiosity and his way of "questioning" immediately struck me. When I was a student, he always wanted to know about my courses, exams and results of studies on the photosynthesis and eco-physiology of aquatic macrophytes. His talks encouraged learning— for example, as he described the new techniques introduced into the Pallanza Institute by other scientists such as Richard Vollenweider and others through the years. He was a true scientist, curious, com-

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petent and always eager to have contact with the outside world. He had many friends from the U.S.A (I remember Charles Goldman, Tom and Yvette Edmondson) but also in other countries. With Giuliano, I spent much time on field trips to various lakes, and during car travels he liked to listen to classical music. He loved it, especially Mozart. Every now and then, he dropped the volume of the "music tape, audio cassettes" (yes, those were "prehistorical" times) and started talking about his students, his university courses, his volleyball games, the San Vittore (Verbania) and the Quadriclavio (Bologna) polyphonic choirs of which he was a member, but always with the desire to communicate and highlight what had value for him in his daily life.

In the early 1980's, he worked with me and other colleagues on the relationship between primary production (photosynthesis) and the concentration of algal pigments (chlorophylls and carotenoids) in sediment cores, with the aim of reconstructing history from the past trophic conditions of the lakes.

I owe him a lot and working with him interested me, stimulated me, encouraged me... even if he was a bit loquacious, especially late in life... but I enjoyed it a lot.

I am happy to share these thoughts above all, once again, with the new young researchers and the old colleagues who knew him.

At the risk of boring you, there is one last thing I must recount: he was one of the supporters, perhaps the first, of the "liming" operation on Lake Orta. In 1986, he went to Sweden, where this practice was widely used, to learn the method and adapt it to the new needs of our lake (I remind those who do not know that this intervention was the first in the world for a lake of that size and volume).

With his wife Carla Bonacina, also a researcher and often moderator in discussions with colleagues and friends, Giuliano has always shared everything in his life. Carla helped him frequently in recent years, when both physically and mentally he was slowly fading away. Giuliano, on the occasion of my last seminar at the institute (a summary on my scientific career), introduced himself



as happy to be there, and at the end, hugging me, said: "you have made use of what you have learned in my courses at university and at the institute, and I have always tried to convey this to you as well as to other students and young researchers". With him goes an important piece of the Istituto Italiano di Idrobiologia, now CNR-IRSA. With him goes the personal history of freshwater ecology, of friends, of teachers, and of colleagues who played a part in the growth of the scientific community of which he was an eminent interpreter.

He was a member of S.I.L. (International Society of Limnology), North American Benthological Society, A.I.O.L. (Associazione Italiana di Oceanologia e Limnologia), S.It.E. (Società Italiana di Ecologia), U.Z.I. (Unione Zoologica Italiana).

He was author or co-author of more than 150 scientific papers, mostly on the large subalpine Italian lakes, but also on volcanic, reservoir lakes and coastal marine areas.

Giuliano leaves behind his wife Carla and his children Paolo, Anna and Isabella.

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